

ACOUSTICS2008/1553 **Behavioral and physiological correlates of language preference**

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With increasing experience listening to language, infants' sensitivity to the patterns of their native language becomes more specialized. In monolingual, hearing infants, this tuning-in into the native language has been demonstrated in an elegant experiment. Hayashi et al. (2001) tested Japanese-learning infants between 4 and 14 months on their preference for listening to Japanese when compared to English. Not surprisingly, Japanese-learning infants preferred to listen to Japanese over English. Critically, the magnitude of this native language preference increased linearly from 4- to 14-months.

In this study, we replicated and extended Hayashi et al.'s results. We tested 65 Australian-English learning infants aged 3 - 16 months on their preference for Australian-English compared to Japanese sentences. Our results confirm the findings of Hayashi et al.: Australian-English hearing infants' prefer their native language, and this preference increases linearly with age. We also tested preference when the same infants heard Australian-English and German sentences. English and German are rhythmically similar, while differing in segmental characteristics. Results indicate that similar to early language discrimination, rhythmic distance affects the emergence of language preference. We are currently analysing concomitant heart rate measured from these infants when they were listening to native and non-native sentences.